

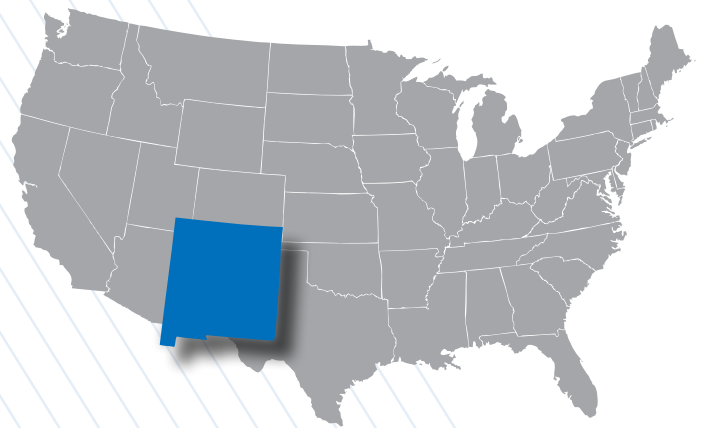
## New Mexico Manufacturing Extension Partnership

New Mexico MEP is a statewide assistance center dedicated to increasing the competitiveness of the state's small and mid sized businesses. They work with each client individually to pinpoint the problems and begin implementing incremental changes towards an over all transformation to success!

New Mexico's MEP experts and industry resources help create the change that can make the difference. The center provides expertise in results-driven methodologies, best practices, and innovative technologies designed to increase a company's profitability.

As a public/private partnership, New Mexico MEP brings together government, not-for-profit and industry resources to offer the comprehensive programs and services you need.

New Mexico MEP has offices in Albuquerque, Farmington and Roswell, New Mexico.



### For more information, contact

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### New Mexico MEP CLIENT IMPACTS

*Impacts are based on clients receiving service in FY2012*

Total Increased/  
Retained Sales



**\$113.7 Million**

Total Increased/  
Retained Jobs



**369**

New Client  
Investments



**\$20.9 Million**

# CLIENT SUCCESS: LITEHOUSE INTERNATIONAL

*“New Mexico MEP consistently displayed innovative thinking that produced positive solutions to each challenge that confronted us. Their methodology resulted in the design team’s ability to develop maximum efficiency and manufacturing processes. As a result of MEP’s efforts and abilities we are now able to quickly advance development of our product and introduce it to the marketplace.”*

Vince DiGregory, President

## Improving Products for Disaster Relief

LiteHouse International, Inc. (Litehouse) was created three years ago in response to the need for temporary and permanent shelters following natural disasters. An idea was formed and they began working on a modular housing unit that would require no skilled labor to erect. The shelter would be delivered in a fully connected unit that could “pop-up” at the relief site. This concept would eliminate the need for skilled workers and carpenters that are required to assemble competing units that are currently on the market. Litehouse secured a patent on their design and identified potential markets and customers. The company is based in Albuquerque, New Mexico with five employees.

### Situation:

Litehouse had a design and drawings for their shelter unit and wanted to take steps towards sales, manufacturing and distributing. Although the president had a background in manufacturing, he wanted to collaborate with the New Mexico MEP, a NIST MEP affiliate, to manufacture and commercialize his product because he was aware of its success working with other manufacturers. Raw materials were still being tested and narrowed down with special focus on price, durability and weight. Besides disaster relief, the shelter was now being designed with a military application in mind. Additionally, Litehouse wanted to design a facility that could handle the manufacturing of all the parts, along with assembly areas so the units would be complete and ready to deploy.

### Solution:

With the help of New Mexico MEP, Litehouse completed several innovative projects in an effort to manufacture the shelter unit. A series of Value Stream Maps, Plant Layout, Standardized Work and Line Balancing projects were completed in 15 months.

When Litehouse first met with MEP, they wanted to order a custom built 16' form roll machine to create the panels for the shelter unit. Besides the high cost of a custom machine, this was a concern for many other reasons. Instead, they realized they could replace the custom machine with two smaller production machines. This was a much less expensive solution that also met the production rate.

The next phase of the project addressed the factory layout. The design selected used an advanced visual delivery system that minimized space and made it possible to identify production issues by simply scanning the manufacturing floor.

The most recent projects have focused on Standardized Work and Line Balancing. The factory was designed to manufacture 90 units per day. Every job was specific in nature and based on exact cycle times. The cycle times ranged 5-20 minutes depending on what area of the facility the employee worked in. Using this concept, they minimized labor, space and inventory on the floor.

### Results:

- \* Estimated initial cost savings of \$1.25M annually
- \* Avoided a \$500,000 unnecessary investment
- \* Improved efficiency by 65% with new layout
- \* Installed a system to detect manufacturing problems early

**\$1.25 million**  
cost savings

2013